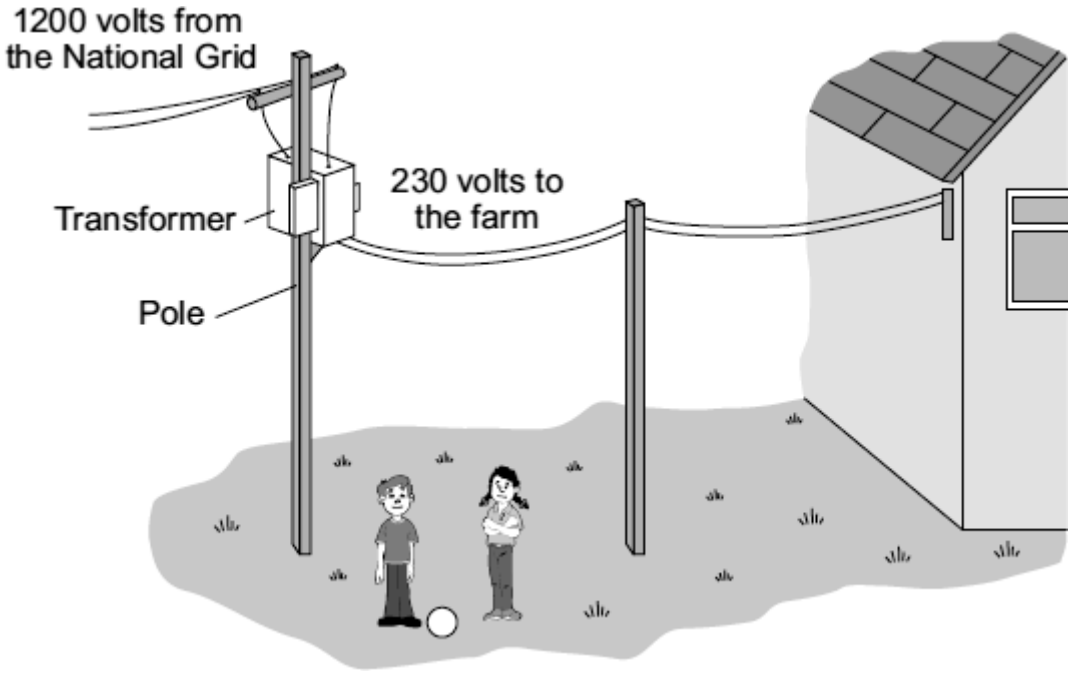
Practice Question Set For GCSE
Subject : Physics
Paper-2 Topic: GCSE Triple Science_Magnetism And Electromagnetism(LDQ)

Merit Minds
www.merit-minds.com
Exam Preparation and Free Resources

Name of the Student:_____
Max. Marks : 18 Marks **Time : 18 Minutes**

Q1.

The diagram shows part of the system used to supply a farm with electricity.



(a) The core of the transformer is made of metal.

Complete the following sentence by drawing a ring around the correct word in the box.

The metal used for the core of the transformer is

copper.
iron.
steel.

(1)

(b) (i) What sort of transformer is shown in the diagram?

_____

(1)

(ii) Complete the following sentence by drawing a ring around the correct line in the box.

In this transformer, the number of turns on the secondary coil is

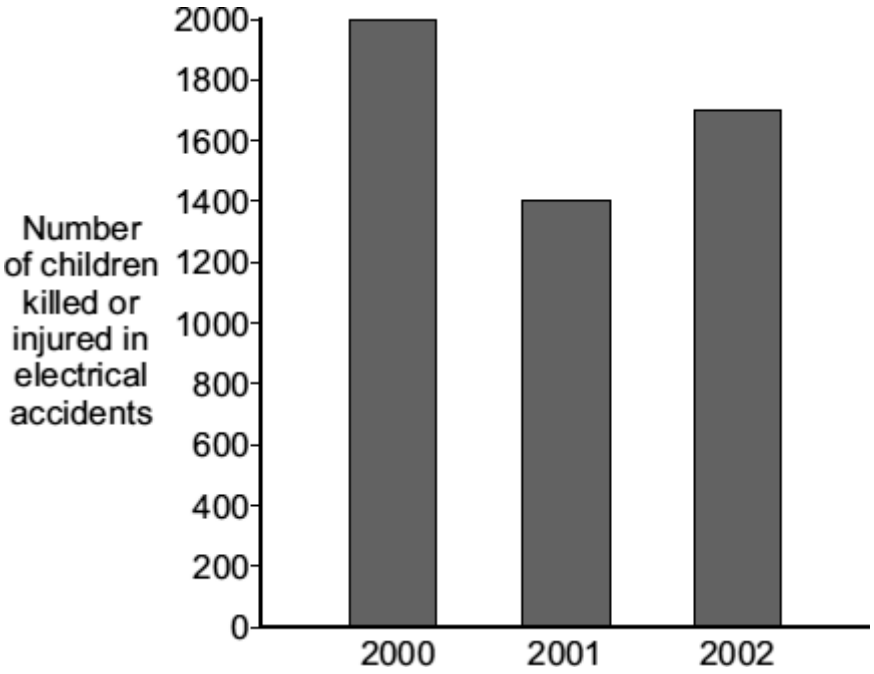
less than
the same as
greater than

the number of turns on the primary coil.

(1)

(c) Transformers and other electrical equipment can be dangerous.

The following bar chart shows the numbers of children, aged 14 or under, killed or injured in electrical accidents in the UK in 2000, 2001 and 2002.



(i) In which of these years were most children killed or injured in electrical accidents?

_____

(1)

(ii) A newspaper claims that the number of children killed or injured by electrical accidents will increase in 2011.

Which of the following gives a reason why the information given in the graph does not support this claim.

Put a tick (✓) in the box next to your answer.

The pattern shows an upward trend. ☐

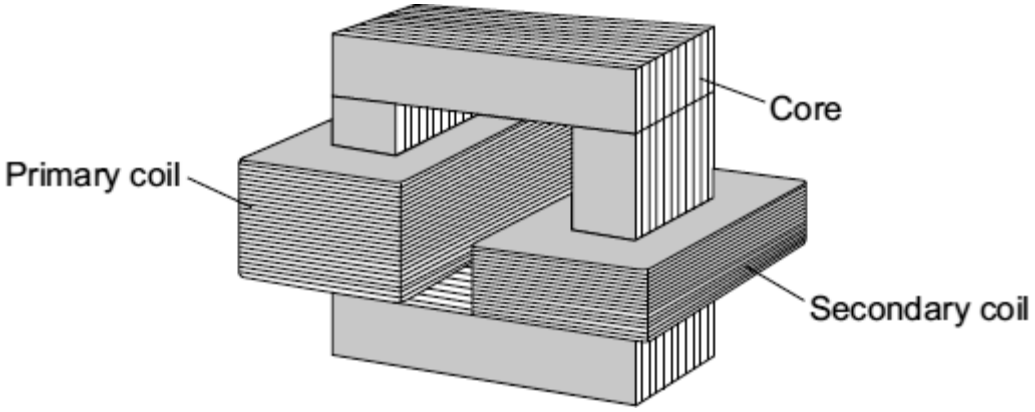
The pattern shows a downward trend. ☐

There is no pattern. ☐

(1)
(Total 5 marks)

Q2.

A teacher demonstrates a small transformer.



(a) (i) What is the core made of?

Draw a ring around the correct word in the box.

aluminium	**copper**	**iron**

(1)

(ii) The potential difference (p.d.) across the secondary coil is less than the p.d. across the primary coil.

What sort of transformer is it?

_____

(1)

(b) Where is a step-up transformer used as part of the National Grid?

_____

(1)

(c) The teacher writes a note about the transformer but leaves **five** spaces.

Use the correct words from the box to complete the spaces.

coil	**core**	**current**	**ends**	**field**	**wire**

A transformer works because an alternating _____ in the primary _____ produces a changing magnetic _____ in the _____ and then in the secondary coil.

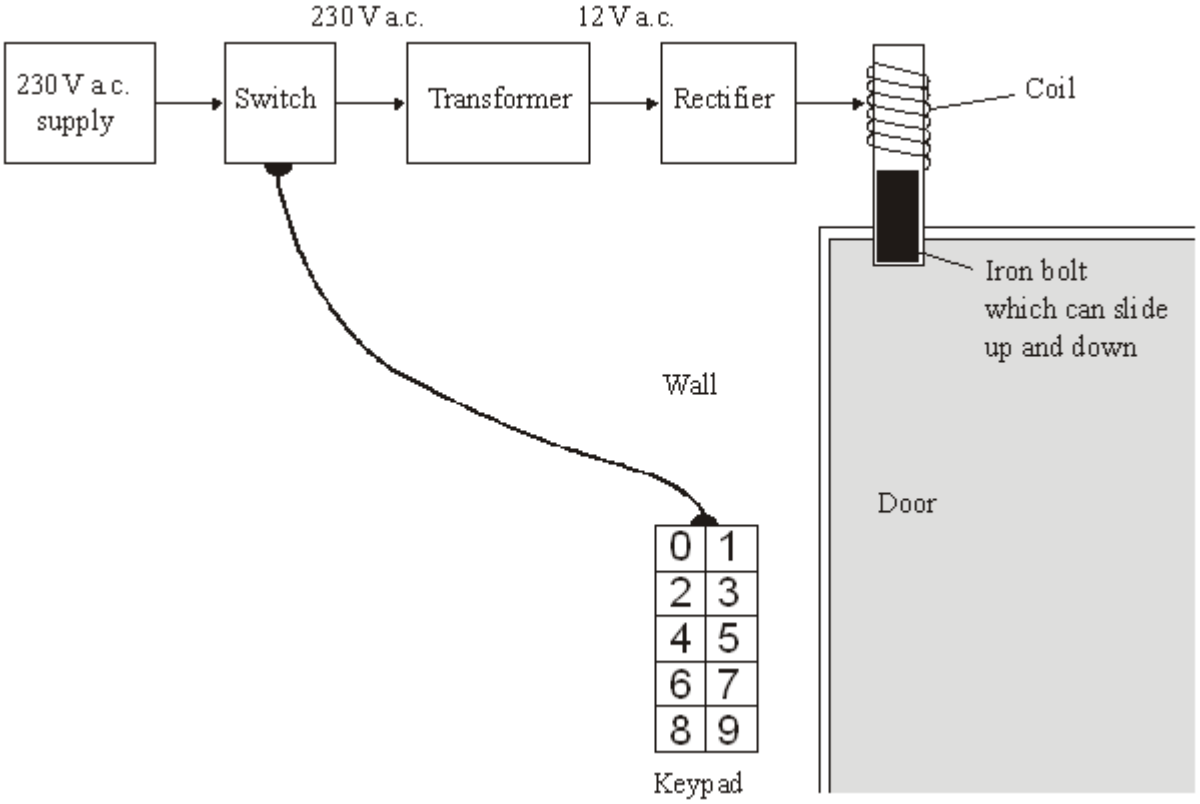
This induces an alternating potential difference across the _____ of the secondary coil.

(5)
(Total 8 marks)

Q3.

The diagram shows the design for a remotely controlled door bolt.

When the correct numbers are entered into the keypad the transformer switches on. Then the door can be opened.



(a) What kind of transformer is shown in the diagram?

_____

(1)

(b) What does the abbreviation a.c. stand for?

_____

(1)

(c) Complete the sentences using the correct words from the box.

attracts	**downwards**	**magnet**	**reflects**	**repels**
sideways	**switch**	**transformer**	**upwards**	

(i) When a current flows in the coil, the coil becomes a _____ .

(ii) The coil _____ the iron bolt which moves _____

(3)
(Total 5 marks)