



Name _____ Class _____ Roll no. _____ Date _____ Marks _____ / 29

1 Key words**[4]**

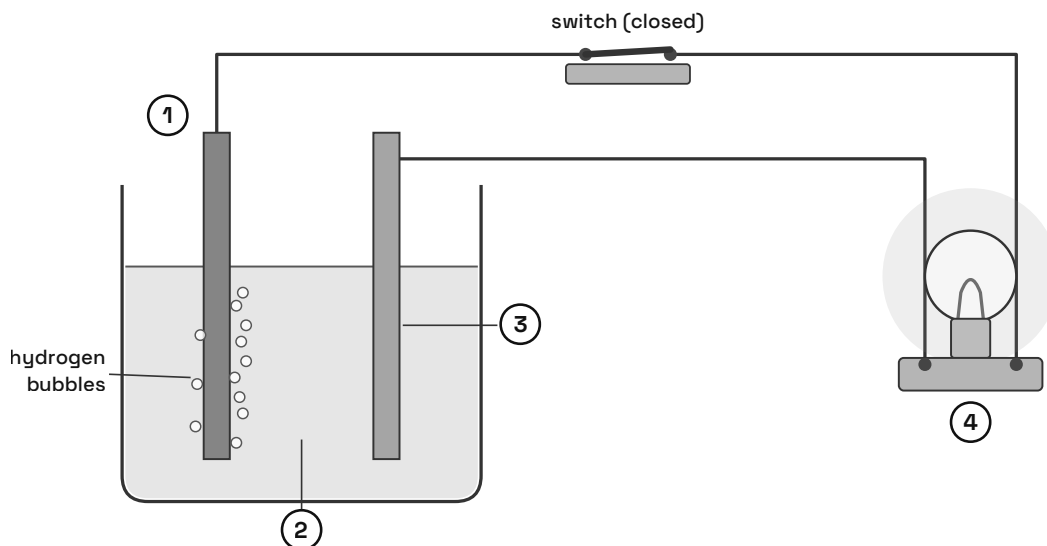
Fill in the blanks with words from the box. Two words in the box are not needed. Each blank carries 0.5 mark.

copper dilute sulphuric acid electrical electromagnet fuse load magnetic field
magnetic substance permanent poles

A substance that is attracted by a magnet is called a _____. The region around a magnet in which it attracts or repels is called its _____. A magnet's pull is strongest at its two _____. A magnet made by passing an electric current through a coil of wire is called an _____. A simple cell uses _____. A cell changes chemical energy into _____ energy. A device that runs on electricity, such as a bulb, is called a _____. A _____ wire melts at a low temperature when too much current flows.

2 Label the diagram**[2]**

The diagram shows a simple cell lighting a bulb. Write the names of the parts numbered 1 to 4. Each carries 0.5 mark.



1. _____

2. _____

3. _____

4. _____



[4]

Choose the correct option for each of the following questions.

- i. Which one of these is **not** attracted by a magnet? [1]
 - a. an iron nail
 - b. an iron pin
 - c. iron dust
 - d. dust particles (soil dust)
- ii. Which one of these does **not** produce electricity? [1]
 - a. a simple cell
 - b. a dry cell
 - c. an electric motor
 - d. a generator
- iii. What is the job of a cell? [1]
 - a. to change electrical energy into chemical energy
 - b. to change chemical energy into electrical energy
 - c. to change chemical energy into light energy
 - d. to change chemical energy into sound energy
- iv. Why is a fuse used? [1]
 - a. to increase the current in a circuit
 - b. to decrease the current in a circuit
 - c. to stop more current flowing than the circuit can safely carry
 - d. to change the direction of the current in a circuit

[2]

Write “true” or “false” after each statement. Each carries 0.5 mark.

- i. The region of attraction or repulsion round a magnet is called its magnetic pole.
- ii. Like poles of two magnets repel each other.
- iii. Fuse wire melts at a low temperature.
- iv. An electromagnet stays a magnet after the current is switched off.

[3]

Write very short answers to the following questions.

- a. Name any two metals that a magnet attracts. [1]
-
-
- b. Name any two sources of electricity. [1]
-
-
- c. Write one use of an electromagnet. [1]
-



6 Short answers

[8]

Write short answers to the following questions.

- a. Write any two differences between a closed circuit and an open circuit.

[2]

- b. What is an electric circuit? What are the basic parts of an electric circuit?

[2]

- c. Draw an electric circuit with a cell, a switch and a bulb, using their symbols.

[2]

- d. Give a reason: an MCB is easier to use than a fuse.

[2]

7 Long answer

[4]

Write a long answer to the following question.

What is an electromagnet? Write how an iron nail can be made into an electromagnet. Write two ways to make it stronger.



8 Think

[2]

Think, then answer.

The fuse in Ronish's home has to be changed often. His neighbors suggest that his father use a slightly thicker copper wire in place of the fuse wire, so that it need not be changed so often and electricity can be used without any trouble. What do you think of this idea? Give reasons.

9 Activity: Which things does a magnet pull?

(not marked)

Bring a magnet close to each thing. Write whether the magnet pulls it.

Thing	Made of	Does the magnet pull it?
iron nail		
aluminium foil		
copper wire		
steel pin		
eraser		
brass key		

