Name of the Student:_____

Max. Marks : 18 Marks **Time : 18 Minutes**

Q1.

Figure 20 shows some of the apparatus that students use to determine the resistance of a piece of iron wire.

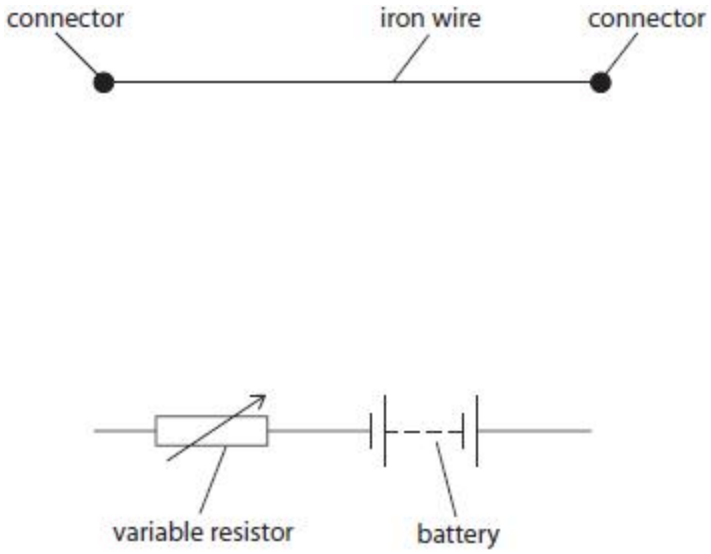


Figure 20

Add connecting wires, a voltmeter and an ammeter to complete the circuit in Figure 20 so that the students can determine the resistance of the piece of iron wire.

(2)

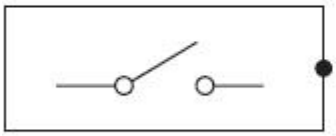
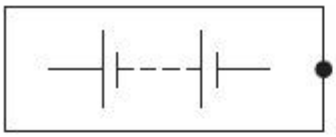
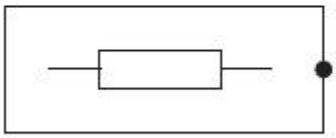
(Total for question = 2 marks)

Q2.

This question is about electrical circuits.

Draw **one** straight line from each circuit symbol to its description.

(3)

circuit symbol	description
	battery
	LED
	switch
	resistor

(Total for question = 3 marks)

Q3.

Figure 3 shows the parts in an electrical circuit.

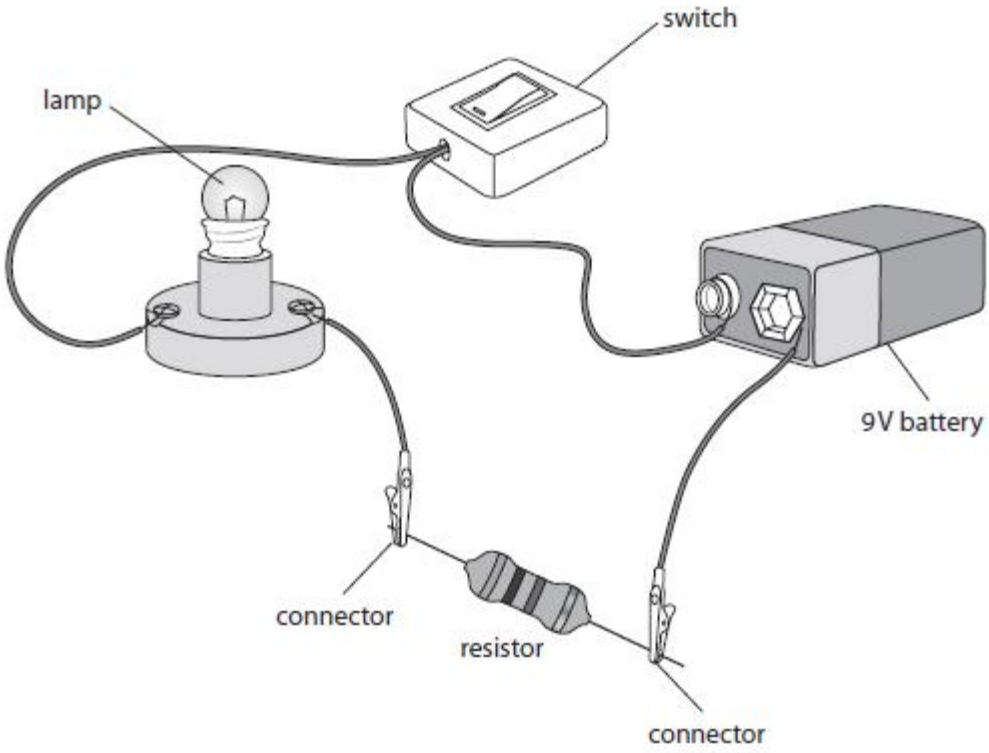


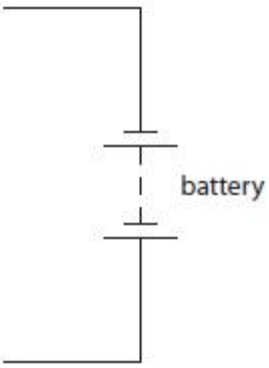
Figure 3

Draw the circuit diagram of this electrical circuit in the space provided.

The battery symbol and some of the connecting wires have been drawn for you.

(4)

circuit diagram



(Total for question = 4 marks)

Q4.

Figure 10 shows a circuit used to light a lamp.

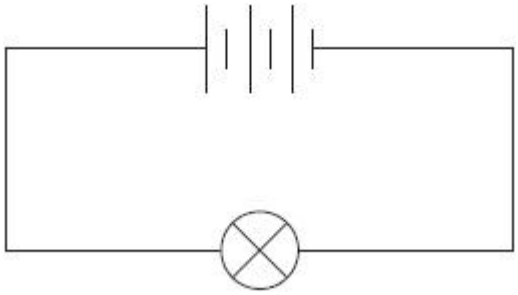


Figure 10

(i) State **two** things you could do to the circuit to make the lamp dimmer.

(2)

1 .....

.....

2 .....

.....

(ii) The energy transferred by the lamp in 20 s is 18 J.

Calculate the power of the lamp.
State the unit.

(4)

power of the lamp = ...

unit = ...

(iii) The potential difference across the lamp is 4.2 V.

The current in the lamp is then 0.19 A.
Calculate the resistance of the lamp.

(3)

resistance of the lamp = ... Ω

(Total for question = 9 marks)