

Name of the Student: _____

Max. Marks : 18 Marks

Time : 18 Minutes

Mark Schemes

Q1.

(a) filament bulb

1

(b) (i) 6 V

1

(ii) 3 Ω or their $\frac{(i)}{2}$ correctly calculated
 allow 1 mark for correct substitution ie
 $6 = 2 \times R$
 or their $(i) = 2 \times R$

2

(iii) 1 A

1

(iv) 6 Ω or their (i) / their (iii) correctly calculated

1

(v)

Decrease	Stay the same	Increase
	✓	
✓		
✓		

1

1

1

[9]

Q2.

(a) (i) p.d. is (directly) proportional to current
or
 gradient / slope is constant
or
 the lines show constant resistance
 accept lines are straight / diagonal

1

(ii) C

reason only scores if C is chosen

1

for the same p.d. the current is the smallest

*accept lowest gradient **and** the gradient = $1/R$*

1

(b) (i) ohm

accept correct symbol Ω

accept an answer written in the table if not given in answer space

1

(ii) K and L

reason only scores if both K and L are chosen

1

only length varies

accept type of metal and the diameter are the same

1

(iii) measure the resistance of more wires made from different metals

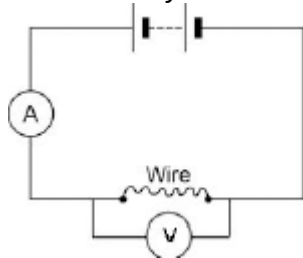
accept test more (types of) metals

measure the resistance of more wires is insufficient

they only use two metals is insufficient

1

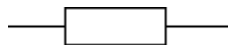
(c) (i) voltmeter symbol correct and drawn in parallel with the wire



accept voltmeter symbol correct and drawn in parallel with the battery

1

(ii) correct symbol drawn



symbol must be rectangular

1

[9]