

# Series and Parallel Circuits

## Mark Scheme

Level	GCSE (9-1)
Subject	Combined Science: Trilogy - Physics
Exam Board	AQA
Topic	6.2 Electricity
Sub-Topic	Series and Parallel Circuits
Difficulty Level	Bronze Level
Booklet	Mark Scheme

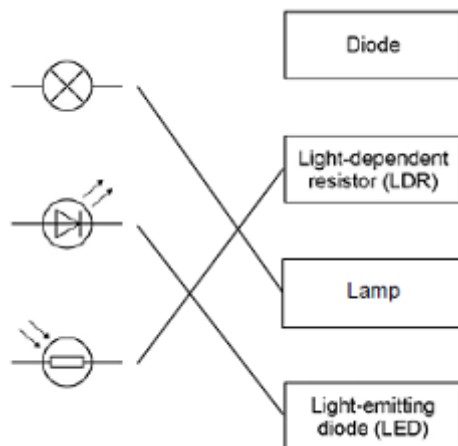
**Time Allowed:** 17 minutes

**Score:** /17

**Percentage:** /100

**Grade Boundaries:**

**M1.(a)**



*allow 1 mark for each correct line if more than one line is drawn from any symbol then all of those lines are wrong*

3

(b) (i) half

1

(ii) 3(V)

1

(iii)  $V_1$

1

(c) (i) potential difference / voltage of the power supply  
*accept the power supply*  
*accept the voltage / volts*  
*accept number of cells / batteries*  
*accept (same) cells / batteries*  
*do not accept same ammeter / switch / wires*

1

(ii) bar drawn – height 1.(00)A  
*ignore width of bar*  
*allow 1 mark for bar shorter than 3<sup>rd</sup> bar*

2

(iii) as the number of resistors increases the current decreases

1

**[10]**

**M2. (a) (i) 6**

- |  |   |
|--|---|
|  | 1 |
| (ii) variable resistor   | 1 |
| (iii) voltmeter  | 1 |
| (b) (i) point at 3 V ringed  | 1 |
| (ii) The student misread the ammeter.  | 1 |
| (iii) 1 (volt)<br><i>accept every volt</i>   | 1 |
| (c) as one increases so does the other <del>or</del> directly proportional <del>or</del> positive correlation<br><i>accept a numerical description, eg when one doubles the other also doubles</i> | 1 |

[7]