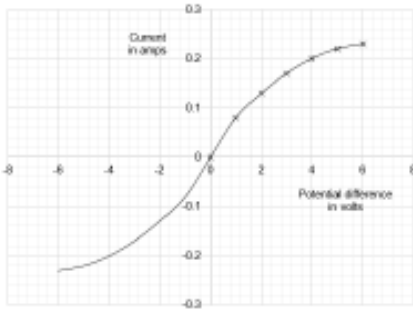
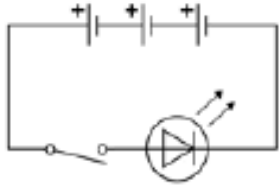


ElectricityPast Paper Answers AQA Physics GCSE

Question	Answers	Extra information	Mark
1	ammeter and voltmeter symbols correct  voltmeter in parallel with lamp  ammeter in series with lamp		1  1  1
2	smooth curved line of correct shape  passing through - 4.0 V, - 0.2 A or - 6.0 V, - 0.23 A  	do not accept a line that becomes horizontal  2 <sup>nd</sup> mark conditional on scoring 1 <sup>st</sup> mark	1  1
3	potential difference = current × resistance or $V = IR$		1
4	$I = 0.08 \text{ (A)}$ $1.0 = 0.08 \times R$  $R = \frac{1.0}{0.08}$  $R = 12.5 \text{ (}\Omega\text{)}$	allow $1.0 = \text{their } I \times R$ provided their $I$ has been obtained from the graph  allow $R = \frac{1.0}{\text{their } I}$  allow an answer consistent with their $I$	1  1  1  1

Question	Answers	Extra information	Mark
5	ammeter displays a reading when not connected (to a circuit)		1

Question	Answers	Extra information	Mark
6			1
7	charge flow = current $\times$ time or $Q = It$		1
8	$I = 0.050 \text{ (A)}$ $Q = 0.050 \times 14\,400$ $Q = 720 \text{ (C)}$	allow a correct substitution using an incorrectly/not converted value of I  allow a correct calculation using an incorrectly/not converted value of I	1 1 1
9	there is no current in a diode (in the reverse direction) or charge will not flow through a diode (in the reverse direction)  (because) a diode has a (very) high resistance (in the reverse direction)	allow diode will not conduct (electric charge)  do not accept the circuit is not complete	1  1
10	$\text{Efficiency} = \frac{\text{Useful power output}}{\text{Total power input}}$		1

Question	Answers	Extra information	Mark
11	$0.75 = \frac{\text{Useful power output}}{0.24}$		1
	Useful power output = $0.75 \times 0.24$		1
	Useful power output = 0.18 (W)		1