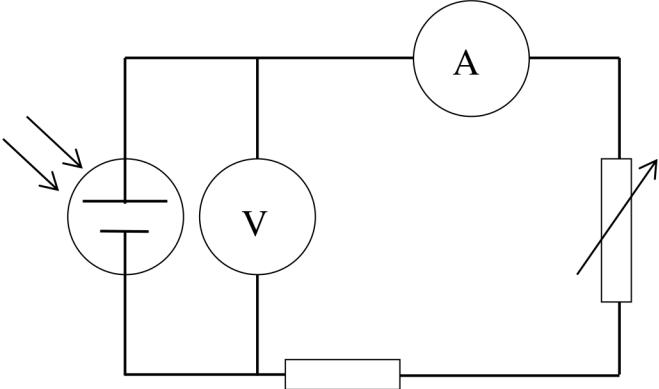


Question Number	Answer	Mark
2(a)(i)	<ul style="list-style-type: none"> Using the lens produces a parallel beam of light Or using the lens concentrates the light on the solar cell (1) The light from the filament bulb spreads out Or to increase the intensity of light Or to ensure the intensity of light is even (1) <p>Accept use of diagrams to support statement for MP1 / MP2</p>	2
2(a)(ii)	<p>Max TWO from</p> <ul style="list-style-type: none"> Control background light [Accept any method to control background light] (1) Keep the solar cell at the same distance from the filament bulb (1) Keep the solar cell at the same angle to the filament bulb (1) 	2
2(b)(i)	<ul style="list-style-type: none"> Ammeter in series with the solar cell, resistor and variable resistor (1) Voltmeter in parallel with the solar cell (1) 	2
2(b)(ii)	<ul style="list-style-type: none"> To limit the (maximum) current in the solar cell Or to avoid short-circuiting the solar cell (1) 	1
2(c)	<p>Max TWO from</p> <ul style="list-style-type: none"> Solar cells do not emit greenhouse gases [accept a named greenhouse gas] Or using solar cells does not contribute to global warming Or using solar cells would not cause acid rain Or using solar cells would reduce the need for fossil fuels (1) Solar cells use a renewable energy source (1) Sunlight/energy used is free (1) No need for mains wiring Or can be used where there is no mains electricity (1) 	2
Total for question 2		9