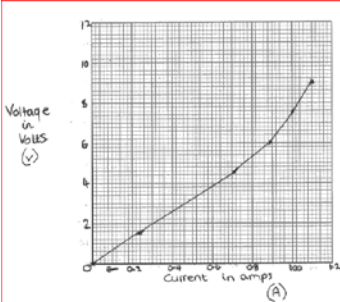
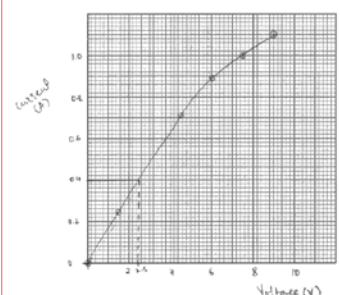


Question number	Answer	Notes	Marks														
10(a)	any 3 mistakes identified from MP1. cells are connected with wrong polarity; MP2. ammeter is connected in parallel (with wire); MP3. voltmeter is connected in series (with wire); MP4. circuit has not got a switch;	allow RA for any MP allow idea that meters should be swapped for two marks (MP2 and MP3)	3														
(b) (i)	<p>suitable scale chosen (> 50% of grid used); axes labelled with quantities and unit; plotting correct to nearest half square (minus one for each plotting error) ;; line of best fit through zero;</p> <div></div> <p>= 4 not curve mark</p> <div></div> <p>= 5</p>	<p>only scales in 1,2,5,10 or 8 acceptable orientation unimportant</p> <p>points must be shown clearly i.e. two plotting errors = no marks for plotting i.e. smooth curve</p> <table><tr><td>I</td><td>V</td></tr><tr><td>0.0</td><td>0.</td></tr><tr><td>0.2</td><td>1.</td></tr><tr><td>0.7</td><td>4.</td></tr><tr><td>0.8</td><td>6.</td></tr><tr><td>1.0</td><td>7.</td></tr><tr><td>1.1</td><td>9.</td></tr></table>	I	V	0.0	0.	0.2	1.	0.7	4.	0.8	6.	1.0	7.	1.1	9.	5
I	V																
0.0	0.																
0.2	1.																
0.7	4.																
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1.0	7.																
1.1	9.																
(ii)	0.40 A	range 0.39 A to 0.41 A	1														
(iii)	One of - MP1. Temperature (of wire) was not constant; MP2. Resistance (of wire) was not constant;		1														