

Question number	Answer	Notes	Marks														
2 (a) (i)	<p>Points plotted to within half a small square;</p> <table><thead><tr><th>Number of turns on primary coil</th><th>Output voltage in V</th></tr></thead><tbody><tr><td>10</td><td>39.6</td></tr><tr><td>20</td><td>19.7</td></tr><tr><td>40</td><td>9.9</td></tr><tr><td>60</td><td>6.6</td></tr><tr><td>80</td><td>5.0</td></tr><tr><td>100</td><td>4.0</td></tr></tbody></table>	Number of turns on primary coil	Output voltage in V	10	39.6	20	19.7	40	9.9	60	6.6	80	5.0	100	4.0	Points should lie on a very good curved line.	1
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(ii)	<p>Best fit line is smooth curve;</p>	ECF their data points.	1														
(iii)	<p>As number of (primary) turns increases, (secondary) voltage decreases;</p> <p>At a decreasing rate/is non-linear;</p>	<p>Allow RA</p> <p>Allow unqualified 'inversely proportional' for 2 marks.</p> <p>Ignore: 'negative exponential'</p>	2														