Question number	Answer	Notes	Marks
5 (a) (i)	position of the mass hanger;	allow distance of mass hanger/eq reject unqualified "distance"	1
(ii)	any two from: MP1. weight or mass of metre rule MP2. weight or mass of mass hanger; MP3. positions of newton meter(s);	ignore "same equipment"	2
(iii)	any one from: • take repeats and find mean; • extend the range of the results; • measure more intermediate positions; • repeat to {identify/remove} anomalies; • plot a graph to spot anomalies;		1
(b) (i)	all data plotted to within half a small square;		1
(ii)	straight line passing through all points;	allow straight line with points evenly distributed either side if plotting error in (i)	1
(iii)	any four from: MP1. as position of mass hanger increases, reading on newton meter A decreases; MP2. as position of mass hanger increases, reading on newton meter B increases; MP3. relationship(s) are linear; MP4. idea that newton meter readings are the same when the position is 50cm; MP5. idea that the sum of the newton meter readings is constant;	accept "as A decreases, B increases" for MP1 & MP2 ignore references to proportionality	4
(c)	any three from: MP1. idea that clockwise moment equals anti-clockwise moment; MP2. distance of mass hanger from newton meter B decreases; MP3. (therefore) anti-clockwise moment of mass hanger weight (about B) decreases; MP4. clockwise moment (of newton meter A reading) decreases (thereby decreasing reading);	allow idea that moments must balance allow distance from newton meter A increases	3

Total for Question 5 = 13 marks