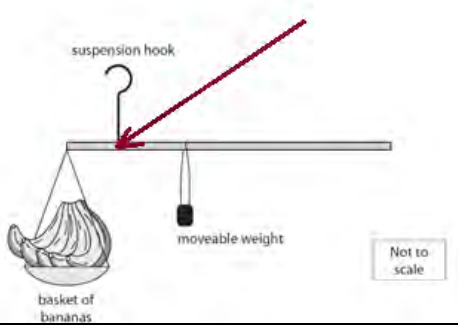
Question number	Answer	Notes	Marks
7 (a)	X marked at the point of suspension;  	allow cross in line with hook but just above or below bar	1
(b)	(at equilibrium, sum of) moment(s) anticlockwise = (sum of) moment(s) clockwise;		1
(c)	substitution into principle of moments; rearrangement; evaluation; e.g. 14.1 × weight of bananas = 84.6 × 1.25 (weight of bananas =) $\frac{84.6 \times 1.25}{14.1}$ (weight of bananas =) 7.5 (N)	allow cm or m for distance units -1 if POT error	3
(d)	finding weight of one banana; conversion from weight to mass in kg; conversion to g from kg; e.g. weight of one banana = 7.5 ÷ 5 (= 1.5 N) mass = (1.5 ÷ 10 =) 0.15 kg (mass =) 150 (g)	allow ECF answer from (c) ÷ 5 allow use of g = 9.8, 9.81 allow 0.153... allow 153	3
(e)	any two from: MP1. use a yard-arm with a longer distance for the small weight to move along/eq; MP2. smaller distance from pivot to basket; MP3. heavier (moveable) weight;	ignore solutions involving adding another basket allow use a longer yard-arm / steel bar hook to basket allow larger (moveable) weight	2

Total for Question 7 = 10 marks