Question number	Answer	Notes	Marks
6 (a) (i)	Work done = force x distance moved;	Allow W = F x d and rearrangements	1
(ii)	Substitution into correct equation; Calculation; e.g. 13 x 110 1430 (J)	Correct answer without working scores 2 marks	2
(iii)	Same response as for 3(a)(ii)	1430 (J) or ecf	1
(b)	Any two of - MP1 Idea that GPE depends on height OR Statement that GPE = mgh; MP2 Idea that h is reduced; MP3 Idea that centre of gravity (is now) lower;	 Allow centre of mass for centre of gravity	2
(c) (i)	Moment = force x (perpendicular) distance (from the pivot);	Allow moment = F x d and rearrangements	1
(ii)	Calculate given moment; Equate moments; Calculation; e.g. (150 x 0.32) = 48 for one mark 150 x 0.32 = F x 0.87 for two marks F (= 150 x 0.32 / 0.87) = 55 (N) for three marks	If no other mark gained, allow a statement that "clockwise moment = anticlockwise moment" for one mark 55.172 (N)	3

Total 10 marks