MOMENTS 2 MARK SCHEMES

Question 1			
question	**answers**	**extra information**	**mark**
a	51.2	allow **1** mark for correct substitution, ie 64 × 0.8 provided no subsequent step shown	2
(b)	it increases (the moment)	must be comparative accept **1** mark for calculation of the moment = 64 (Nm)	1
Total			3

Question 2			
(a)	60	allow **1** mark for correct substitution (with d in metres), ie 36 = F × 0.6 an answer of 0.6 **or** 6 gains **1** mark	2
(b)	the line of action of the weight lies outside the base / bottom (of the bag)	accept line of action of the weight acts through the side accept the weight (of the bag) acts outside the base / bottom (of the bag)	1
	a resultant / overall / unbalanced moment acts (on the bag)	accept the bag is not in equilibrium do **not** accept the bag is unbalanced	1

(c)	0.0625	allow **1** mark for correct substitution, ie $$16 = \dfrac{1}{f}$$ an answer of 0.00625 gains **1** mark do **not** accept HZ **or** hz	2
	hertz / Hz		1
Total			**7**

Question 3

(a)	3000	allow **1** mark for correct substitution, ie 600 × 5 provided no subsequent step	2
(b)	anticlockwise moment	must be both words	1
(c)(i)	3400	allow 3.4 kilo (newtons)	1
(c)(ii)	as the distance (of the girl from point A) increases, force F increases	allow gets bigger for increases force is (directly) proportional to distance will negate any correct response	1
Total			**5**

Question 4

(a)	turning		
(b)	420		2

		allow **1** mark for correct substitution, ie 1400 x 0.30 provided no subsequent step shown	
(c)	**A**	reason only scores if A is chosen	1
	any **one** correct reason:		
	the force is furthest away (from the pivot)	accept distance (from the pivot) is the greatest	1
		accept it is further away (from the pivot)	
		accept furthest away from the rock	
Total			5