Question	Scheme	Marks	AOs
4(a)	Use of $F = ma$ for P along the table.	M1	3.3
	$T - kmg = 2m \times \frac{7g}{16}$	A1	1.1b
		(2)	
4(b)	Equation of motion for Q vertically or whole system	M1	3.4
	$6mg - T = 6m \times \frac{7g}{16}$ or $6mg - kmg = 8m \times \frac{7g}{16}$	A1	1.1b
	Solve for k	M1	1.1b
	$k = 2.5$	A1	1.1b
		(4)	
4(c)	The tension would be different either side of the pulley	B1	3.5a
		(1)	
4(d)	Take account of any one of:- the size of the balls, the weight of the rope, the extensibility of the rope, the size of the pulley.	B1	3.5c
		(1)	
			(8 marks)

Notes:

4(a)	M1	Correct no. of terms, condone sign errors
	A1	cao
4(b)	M1	Correct no. of terms, condone sign errors
	A1	Correct equation
	M1	Solve for k using at least one 3 term equation
	A1	cao
4(c)	B1	B0 if any incorrect extras are included
4(d)	B1	B0 if any incorrect extras are included