Question Number	Scheme	Marks
7(a)	$\frac{42mg}{5}-(m+M)g=(m+M)\frac{2g}{5}$ where $M = (p + q)$ **OR** : $\frac{42mg}{5}-Mg=M\frac{2g}{5}$ where $M = p + q + m$	M1 A1
	$(p + q) = 5m$	dM1 A1
		(4)
7(b)	$\frac{14mg}{5}-pg=p\left(\frac{2g}{5}\right)$	M1 A1
	$p = 2m$	A1
		(3)
		(7)
	NOTES	
	N.B. Use the mass in the '*ma*' term to determine which part of the system is being considered.	
(a) **M1**	Form an equation of motion for the whole system with the combined mass of *P* and *Q*. Correct terms, condone sign errors. **N.B.** They may consider the 2 masses (*M*) and the lift separately and eliminate the normal reaction e.g. $R-Mg=M\frac{2g}{5}$ **AND** $\frac{42mg}{5}-mg-R=m\frac{2g}{5}$ AND add to eliminate *R*	
A1	Correct equation in *M* and *m*_for their *M* **N.B.** Award marks for a correct equation only if no wrong working seen.	
dM1	Rearrange to find an expression for the combined mass of *P* and *Q*. Must be a multiple of *m*	
A1	Cao	
(b) **M1**	Form an equation of motion for box *P*. Correct terms, condone sign errors. Fully correct equation.	
A1	Cao	