

Question number	Answer	Notes	Marks
8 (a)	Centre of gravity;	Accept 'Centre of Mass'	1
(b) (i)	Moment = force x (perpendicular) distance;	Condone $M = f \times d$	1
(ii)	Any correct moment; i.e. 2.1×0.28 or $W \times 0.032$ Evidence of use of principle of moments; i.e. $2.1 \times 28 = W \times 3.2$ Re-arrangement ; i.e. $W = 2.1 \times 28 / 3.2$ Evaluation; $W = 18$ (N)	Allow calculation performed in cm Accept unrounded 18.375, 18.4 N. Condone for 1 mark statement of principle of moments.	4