


Question	Answer	Marks	AO Element	Notes	Guidance
1	bus more likely to fall over / topple / less stable (1)  (line of action of) centre of mass may fall outside (the base of) the bus (1)	2			
2	line of action of the centre of mass falls outside the base of the bus <b>OR</b> anticlockwise moment is greater than clockwise moment	1			
3	B A D C	3		four correct = 3 marks  three correct = 2 marks  two correct = 1 mark	
4	any <b>three</b> from:  centre of mass is higher  surface (area in contact with table) is smaller  (so a) small displacement causes toppling  (because with a small displacement the) vertical line through centre of mass is outside the base	3			

Question	Answer	Marks	AO Element	Notes	Guidance
5(a)	centre of mass in centre of load	1			
5(b)	centre of mass (moves) closer to pivot (point)	1			
					[Total: 11]