

Question Number	Answer	Mark																																
*14	<p>This question assesses a student’s ability to show a coherent and logically structured answer with linkages and fully-sustained reasoning.</p> <p>Marks are awarded for indicative content and for how the answer is structured and shows lines of reasoning.</p> <p>The following table shows how the marks should be awarded for indicative content.</p> <table><tr><th>Number of indicative marking points seen in answer</th><th>Number of marks awarded for indicative marking points</th><th>Linkage marks available</th></tr><tr><td>6</td><td>4</td><td>2</td></tr><tr><td>5</td><td>3</td><td>2</td></tr><tr><td>4</td><td>3</td><td>1</td></tr><tr><td>3</td><td>2</td><td>1</td></tr><tr><td>2</td><td>2</td><td>0</td></tr><tr><td>1</td><td>1</td><td>0</td></tr><tr><td>0</td><td>0</td><td>0</td></tr></table> <p>The following table shows how the marks should be awarded for structure and lines of reasoning.</p> <table><tr><td></td><td>Number of marks awarded for structure of answer and sustained line of reasoning</td></tr><tr><td>Answer shows a coherent and logical structure with linkages and fully sustained lines of reasoning demonstrated throughout</td><td>2</td></tr><tr><td>Answer is partially structured with some linkages and lines of reasoning</td><td>1</td></tr><tr><td>Answer has no linkages between points and is unstructured</td><td>0</td></tr></table> <p>Total marks awarded is the sum of marks for indicative content and the marks for structure and lines of reasoning</p> <p>Indicative content</p> <ul style="list-style-type: none">• Acceleration is maximum (or acceleration = g) initially• As velocity increases the air resistance increases• Resultant force decreases until it becomes zero and diver reaches terminal velocity <p>Or</p> <p>(Eventually) forces balance and the diver reaches terminal velocity</p> <ul style="list-style-type: none">• At t_1 the air resistance increases or is greater then the weight• Skydiver decelerates or the resultant force is now upwards/negative• Second terminal velocity is lower because air resistance = weight at a lower velocity. <p>Ignore mention of upthrust.</p>	Number of indicative marking points seen in answer	Number of marks awarded for indicative marking points	Linkage marks available	6	4	2	5	3	2	4	3	1	3	2	1	2	2	0	1	1	0	0	0	0		Number of marks awarded for structure of answer and sustained line of reasoning	Answer shows a coherent and logical structure with linkages and fully sustained lines of reasoning demonstrated throughout	2	Answer is partially structured with some linkages and lines of reasoning	1	Answer has no linkages between points and is unstructured	0	6
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Total for question 14		6																																