

6-A-Day – Computer Science GCSE (35)

Q1	<p>e.g.</p> <ul style="list-style-type: none">• Position = Position + 1 should be changed• ...so the increment is a random number • The random number should be relatively small• ...so the game remains interesting • The end condition of the loop should be changed to UNTIL Position > 100 / check if position > 100 and if so change to 100• ... as the position may not reach exactly 100 due to the random number. • seed/initialise random number generation• ... so that numbers generated appear random <p>Mark in pairs</p>	4
Q2	<ul style="list-style-type: none">• Transmits more quickly / uses less bandwidth	1
Q3	<ul style="list-style-type: none">• Off the shelf software is available for anyone to acquire and use / commercially available• Custom written software is made especially <u>for the school/</u> for a specific user	2

Accept other suitable change and its justification

Accept other valid advantages to do with sending files, NOT storage

Q4	<ul style="list-style-type: none"> • Lossless compression • The code has to be exactly as it was originally written • ... or else it will not work. 	3
<div style="border: 1px solid black; padding: 5px; display: inline-block;">Explanation must follow from the type of compression given.</div>		
Q5	<ul style="list-style-type: none"> • Lossy compression • Achieves higher compression/ smaller file size / faster streaming than lossless • Video can still be viewed at lower quality (from the data compressed). 	3
Q6	<ul style="list-style-type: none"> • Proprietary software cannot be copied/alterd (without permission of the copyright owner) • Open source software can be modified (provided it remains open source) • Proprietary software is distributed only as a compiled program/source code not available • Open source software is distributed with its source code. <p>Mark in pairs</p>	2
<div style="border: 1px solid black; padding: 5px; display: inline-block;">Not cost/free</div>		