


## 6-A-Day – Computer Science GCSE (13)

Q1	<ul style="list-style-type: none"><li>• Storage: device used to store data (in binary format for processing later)</li><li>• Input: device used to enter data into the computer</li><li>• Output: device used to present information/the result of processing to the user</li></ul>	<b>[3]</b>
Q2	<p>High Level Response (5/6): A good understanding with detailed descriptions of a range of relevant input as well as output devices; The information will be presented in a structured and coherent form. There will be few if any errors in spelling, grammar and punctuation. Technical terms will be used appropriately and correctly.</p> <p>Medium Level Response (3/4); awareness of relevant input and output devices with either a range with descriptions although these may be weak for some devices; The information will be presented in a structured format. There may be occasional errors in spelling, grammar and punctuation. Technical terms will be mainly correct.</p> <p>Low level response (0/2): Some relevant devices may be listed with few if any descriptions; Information will be poorly expressed and there will be a limited, if any, use of technical terms. Errors of grammar, punctuation and spelling may be intrusive.</p> <p>Points may include:</p> <p>Input devices:</p> <ul style="list-style-type: none"><li>• Puff-suck switch: allows mobility impaired users to control eg clicking a mouse, by sucking or blowing through a tube</li><li>• Simplified/concept keyboards eg for Braille, or larger keys</li><li>• Eye tracking input – Camera is used to follow the users eye movements and use these to control eg movement of mouse on screen.</li></ul> <p>Output device:</p> <ul style="list-style-type: none"><li>• Braille printer – print documents on paper in braille as raised bumps. Some brailers have plastic bumps which can be raised or lowered by software, so output does not have to be on paper.</li><li>• Text to speech</li><li>• Screen magnifiers</li></ul>	<b>[6]</b>

Q3	<ul style="list-style-type: none"><li>• Web browser used to interpret the file and display the data correctly</li><li>• Because it is an open/accepted standard...</li><li>• ... data will display correctly on all browsers</li><li>• ... which conform to the standard</li></ul>	[2]
Q4	<ul style="list-style-type: none"><li>• It reduces the size of the file which needs to be transmitted</li><li>• Shortens download time</li><li>• Reduces Internet traffic (and hence probability of lost packets)</li><li>• Allows multimedia files to be streamed</li></ul>	[2]
Q5	<ul style="list-style-type: none"><li>• In lossy compression, when the data is uncompressed it is not exactly the same as the original</li><li>• But the difference is so small that it cannot normally be noticed</li><li>• Eg music files(mp3), large resolution images for displaying on small screens.</li><li>• In lossless compression, when the data is uncompressed it is restored completely to the original file</li><li>• Eg compressed text files.</li></ul> <p>(1 mark per bullet, but maximum of 3 if no examples given).</p>	[4]
Q6	 <ul style="list-style-type: none"><li>• A B input into an AND gate</li><li>• Result from AND gate put through a NOT gate (to give P)</li></ul>	[2]

Accept use of NAND gate for 2 marks  
Award 1 mark for diagram of (NOT A) AND (NOT B)