

6-A-Day – Computer Science GCSE (36)

Q1	<p>Points may include:</p> <ul style="list-style-type: none"> • Must abide by software licence • So for open source, the school will be able to make modifications/customisations to exams system • But will probably have to make these modifications also available to other users • And credit all previous contributors in the code • Will have to purchase off the shelf attendance package legally • Software must be able to ensure all legal data protection requirements are met. 	6	<p>Candidates are most likely to discuss copyright issues to do with software licensing and/or data protection issues to do with pupils' personal data. Consider any relevant legal issues. It is the quality of discussion, not the breadth of issues that determines the level (eg it is possible to score a high level mark with a detailed description of copyright issues only).</p>	<p>High Level Response (5–6 marks) A detailed description of legal issues linked to the scenario in the question. 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 marks) A description of legal issues and an attempt to link this to the scenario. Either the description of the issues or the links to the scenario may be weak. There may be occasional errors in spelling, grammar and punctuation. Technical terms will be mainly correct.</p> <p>Low Level Response (1–2 marks) Candidate outlines some obvious legal issues vaguely relevant to a school context. 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>Response not worthy of credit (0 marks)</p>
Q2	<ul style="list-style-type: none"> • Computers are <u>connected to each other</u> • Restricted to a small geographical area/site/other suitable example • <u>Dedicated wired or WiFi connections</u> 	2	<div style="border: 1px solid black; padding: 5px; margin: 10px 0;"> <p>For the first bullet point candidates should be describing a network – just the idea that computers are connected to “something” is not enough.</p> <p>For the third bullet point, just “connected by cables” is not enough as there is no indication these are dedicated cables for the network.</p> </div>	
Q3	<ul style="list-style-type: none"> • 1GB 	1	<div style="border: 1px solid black; padding: 5px; margin: 10px 0; display: flex; align-items: center; justify-content: center;"> <div style="border-right: 1px solid black; width: 40px; height: 20px; margin-right: 5px;"></div> <div style="text-align: center; width: 40px; height: 20px; margin-right: 5px;">1</div> <div style="text-align: left; width: 400px;"> <p>Accept 1.024</p> <p>The units are not necessary</p> </div> </div>	

<p>Q4</p>	<p>Example</p> <pre> INPUT Length1 INPUT Length2 INPUT Length3 IF Length1 = Length2 THEN Output "Isosceles" ELSE IF Length1 = Length3 THEN Output "Isosceles" ELSE IF Length2 = Length 3 THEN Output "Isosceles" ELSE OUTPUT "Not Isosceles" END IF END IF END IF </pre> <p>Award marks for:</p> <ul style="list-style-type: none"> • Inputting three lengths • Comparing lengths in pairs • ... for all three ways <u>correctly</u> • ... outputting "Isosceles" for all valid cases • ... outputting "Not Isosceles" for all cases and only in cases where the three lengths are different. 	<p>5</p> <p>There are various ways to implement this but the two most common methods will be the method shown or one disjuncted IF statement (ie IF Length1 = Length2 OR Length1 = Length3 OR Length2 = Length3). In all cases, apply the criteria in the last 4 bullet points to the whole algorithm to determine the mark.</p>
<p>Q5</p>	<p>Answer: 1 1 1 0 1 1 1 1</p> <p>One mark per nibble</p>	<p>2</p>
<p>Q6</p>	<ul style="list-style-type: none"> • There is an extra carry/bit • As number cannot fit into 8 bits • Result is greater than 255/11111111 	<p>2</p>

