

6-A-Day – Computer Science GCSE (26)

Q1	<p>Clock Speed:</p> <ul style="list-style-type: none">• The higher the clock speed the faster the CPU will run• Represents the number of fetch execute cycles / instructions the CPU can process in a given time <p>Cache size</p> <ul style="list-style-type: none">• the more cache the CPU has the less time is spent accessing memory / programs run faster...• cache is faster than memory/ built into the CPU/contains frequently accessed data <p>(max 2 each)</p>	4
Q2	<ul style="list-style-type: none">• Username: 2012johnsonm• year 2012, surname: Johnson, initial m• As there are no other johnsons (so the answer to the decision will be NO) <p style="text-align: center; border: 1px solid black; padding: 5px;">Username must be spelt correctly, but accept 12johnsonm</p>	3
Q3	<ul style="list-style-type: none">• The pupil joined in 2010• The pupil's surname is Ali• The pupil's initial is M• There were (at least) 3 other pupils called M. Ali <u>in the same year</u>	4

<p>Q4</p>	<ul style="list-style-type: none"> • Translates one line of HL code at a time... • ... and executes it • ... stops when it finds an error • ... can be resumed 	<p>2</p>
<p>Q5</p>	<p>EXAMPLE:</p> <pre> INPUT Distance INPUT Passengers Extra = Distance - 1 CostofExtra = Extra * 2 Cost = 3 + CostofExtra IF Passengers > 4 THEN Surcharge = Cost / 2 Cost = Cost + Surcharge END IF OUTPUT COST </pre> <p>Award marks for:</p> <ul style="list-style-type: none"> • Inputs distance and passengers • Calculates distance - 1 (or equivalent) • Calculates previous answer * 2(or equivalent) • Calculates previous answer + 3 • Checks if more than 4 passengers... • ... and adds 50% correctly • Outputs cost 	<p style="text-align: center;">7</p> <p>Several very different algorithms possible, but any correct solution will address all stated bullet points. eg Cost = (Distance * 2) + 1 Satisfies bullets 2, 3 and 4.</p> <p>Candidates do not need to have considered cases where the distance < 1.</p>
<p>Q6</p>	<p>A Boolean data type is one which has only two possible values... ...denoted by True (1) and False (0)... ...intended to represent the truth values of logic.</p>	