

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

<p>Q1</p>	<p>A classroom in a primary school has 6 stand alone computers. The school decides to connect them to form a LAN.</p> <p>The school decides to use the star topology to create the LAN.</p> <p>Describe what is meant by a star topology. You may use a diagram.</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>..... [2]</p>
<p>Q2</p>	<p>A program includes the following code.</p> <pre>    If A &gt; B Then         A = B         B = A     End If</pre> <p>State the final values of the variables A and B if the values at the beginning of the code are</p> <p>A = 4 B = 9</p> <p>Final value of A = .....</p> <p>Final value of B = .....</p> <p>A = 6 B = 2</p> <p>Final value of A = .....</p> <p>Final value of B = .....</p> <p>[2]</p>
<p>Q3</p>	<p>The intention of lines 02 and 03 is to swap the contents of the variables A and B. This does not work.</p> <p>Rewrite the code so that the contents of the variables are swapped correctly.</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>..... [3]</p>

The questions on this worksheet have been taken from the Additional OCR GCSE Computing Specimen Paper

Q4

A gym has many different types of exercise equipment. To use any equipment, members need to enter an individual 4-digit number. A computer system records how long each member has spent on each type of equipment and uses this information to charge the members.

Complete the table below with two input values which could be used to test that the computer system correctly checks that the member has entered their number correctly. For each item of test data

- Explain why it is used
- State the expected outcome

Test data	Reason for test	Expected outcome

[6]

Q5

The following logic circuit can be written as  $P = \text{NOT} (A \text{ AND } B)$



(a) State the output (P) of the circuit if the inputs are:

(i) A = 1 B = 0

P = .....

[1]

(ii) A = 1 B = 1

P = .....

[1]

Q6

Draw the logic circuit for  $P = (A \text{ OR } B) \text{ AND } C$

[2]