

6-A-Day – Computer Science GCSE (p1.8-2016)

Q1	<p>Alicia has designed a computer using Von Neumann architecture.</p> <p>(a) Describe the purpose of two registers that are used by Von Neumann architecture.</p> <p>1</p> <p>.....</p> <p>.....</p> <p>2</p> <p>.....</p> <p>.....</p> <p>[4]</p>
Q2	<p>(b) The CPU has a clock speed of 3.8GHz.</p> <p>Describe what is meant by a clock speed of 3.8GHz.</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>[2]</p>
Q3	<p>(c) Alicia says: "My computer has a quad-core processor, so it will run twice as fast as a computer with a dual-core processor."</p> <p>Explain why this statement is not always true.</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>[3]</p>

The questions on this worksheet have been taken from the 2018 OCR GCSE Computer Science Paper 1

Q4

The computer will only have 2GB of RAM, but Alicia says that virtual memory can be used instead of adding more RAM.

(i) Explain how virtual memory can compensate for the lack of RAM in Alicia's computer.

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Q5

(ii) Explain why it would be beneficial for Alicia to get more RAM instead of relying on virtual memory.

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Q6

When connecting computers into a network, the use of appropriate protocols are important.

(a) Explain what is meant by a protocol.

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