**A level Computer Science – Bridging Work**

**Task 3 – Types of Processor**

**Part 1**

Building on your Visual Basic skills

1. <https://www.homeandlearn.co.uk/NET/vbNet.html> do lesson 3 add controls using the toolbox only

**Part 2**

If you get stuck with any of the following question check out Task 3 - Support.pdf

1. a) A low-cost von Neumann machine has an address bus of 16 bits. In this computer, a unit of addressable memory is two bytes. How many KiB of addressable memory can be used? [1]

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b) (i) Explain the basic difference between von Neumann architecture and Harvard architecture. [2]

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 (ii) Why is Harvard architecture potentially able to achieve higher processing speeds than von Neumann architecture? [1]

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 (iii) Give a typical use of each type of architecture. [2]

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2. Compare the features of a Reduced Instruction Set Computer (RISC) architecture with that of Complex Instruction Set Computer (CISC) architecture, stating one advantage of each. [6]

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3. Describe briefly the features of a Graphics Processing Unit (GPU), stating why it is particularly suitable for image processing. [3]

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 Total 15 marks