End of topic test

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| Name: | Will Dargan |

1. State the purpose of the ROM in a typical desktop computer. [1]

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| In a typical desktop ROM stores the BIOS. |

1. Describe the purpose of the RAM. [3]

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| RAM stores programs and data currently in use. RAM provides fast access to programs and data currently in use. |

1. Explain the differences between RAM and ROM. [4]

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| * RAM is volatile, ROM is not. * ROM can only be read from, RAM can be both read from and written to. * RAM is often much larger than ROM. |

1. Describe why virtual memory is needed. [2]

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| When RAM is full programs that are open but not in use can be moved to virtual memory. |

1. Explain how virtual memory works. 3 [4]

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| When RAM becomes full any programs that aren’t currently in use are moved to virtual memory. When that program needs to be used again it is moved out of virtual memory and into main memory. If main memory and virtual memory are full the computer will slow down a lot. When data is being moved back and forth between main memory and virtual memory constantly it is called thrashing. |

1. Using a suitable example, explain the need for primary storage. 2 [4]

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| In a computer, running a program from secondary storage would be much too slow so RAM is needed for fast access to the CPU of data and programs currently in use. |

1. State why a cartridge for a portable entertainment games system could be ROM. [1]

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| No data needs to be saved to the cartridge. |

1. State one reason why a portable entertainment games system needs some RAM. [1]

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| To store progress while playing. |

**End of test**

**Total 20 marks**

**17 marks**