

8. (a) (i) Distinguish between random access memory (RAM) and read only memory (ROM). [3]
- (ii) Outline the function of an operating system in managing primary memory. [2]
- (b) Explain the roles of the data bus and the address bus in the machine instruction cycle. [4]
- (c) (i) State how the data stored in the following byte will be represented in hexadecimal. [1]

0	1	0	1	1	1	1	0
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- (ii) State how many integers could be represented in this byte. [1]
- (iii) Outline why this byte could not be used to represent characters such as those used in Chinese. [2]
- (d) Construct a truth table with two input variables. If input variables are equal the value of output variable should be True, False otherwise. [2]