

01.1 Convert the binary number 10010111 into decimal.

[1 mark]

.....

01.2 Convert the decimal number 125 into hexadecimal. You should show your working.

[2 marks]

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Answer:

01.3 Give one reason why programmers often use hexadecimal, instead of binary, to represent numbers.

[1 mark]

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01.4 What is the result of applying a left binary shift of two to the bit pattern 00001100? Express your answer as an 8 bit binary bit pattern.

[1 mark]

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01.5 State the arithmetic effect of left binary shifting a binary number by 4 and then right binary shifting the result by 5.

[1 mark]

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02 Add together the following three binary numbers and give your answer in 8 bit binary

[2 marks]

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00110100
01000100
+ 01010101
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03.1 The ASCII character set uses seven bits to encode each character.
What is the total number of characters that can be encoded in ASCII?

[1 mark]

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03.2 How many bits are there in 2 Bytes?

[1 mark]

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