

01 A bit pattern is shown in **Figure 1**.

Figure 1

01001110

01.1 Convert the bit pattern shown in **Figure 1** into decimal.

[1 mark]

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01.2 The bit pattern in **Figure 1** is made up of 8 bits.

What is the largest decimal number that can be represented using 8 binary bits?

[1 mark]

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01.3 Write down the range of numbers which can be represented using 4 binary bits.

[1 mark]

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.....

02 Convert the decimal number 65 into binary. Write your answer as an 8-bit binary number.

[1 mark]

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03 The ASCII character set uses seven bits to encode every character.

03.1 What is the largest decimal number that can be represented using 7 bits?

[1 mark]

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03.2 What is the total number of characters that can be encoded in ASCII?

[1 mark]

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