01.1 Apply a binary shift two places to the left on the bit pattern 00011100

Write your answer as an 8-bit binary number.

01.2 Apply a binary shift three places to the right on the bit pattern 01110000

Write your answer as an 8-bit binary number.

01.3 State the **arithmetic effect** of applying a right binary shift of 3 to a binary number.

01.4 State the **arithmetic effect** of applying a left binary shift of 1 to a binary number.

01.5 State the **arithmetic effect** of applying a left binary shift of four followed by a right binary shift of five to a binary number.

02 Figure 1 shows a binary bit pattern.

Figure 1

10110000

A binary shift can be used to divide the value in **Figure 1** by 4.

What is the result of this shift? Write your answer as an 8-bit binary number.

03 Explain how a binary number can be multiplied by 4 by shifting bits.