01.1 Convert the binary number 01101110 into hexadecimal.

[2 marks]

0110 = 6; 1110 = 14 = E

Answer: 6E

01.2 Convert the decimal number 137 into 8-bit binary.

[1 mark]

10001001

01.3 What binary shift can be used to **quarter** the value of a binary number?

[2 marks]

Right shift [1] of 2 places [1]

01.4 How many binary numbers can be represented using **4 bits**?

[1 marks]

16

01.5 Write down the largest decimal number that can be represented using **6 bit** binary.

[1 mark]

63

01.6 Write down the range of decimal numbers which can be represented using **5-bit** binary.

[1 mark]

0 to 31

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

[2 marks]

```
  01000100
  00011111
+ 01000001
  10100100
```

03.2 How many bits are there in 2 kiloBytes?

[1 mark]

1 kB = 2,000 Bytes = 2,000 x 8 bits = 16,000 bits