**01.1** Convert the binary number 10111010 into decimal.

**[1 mark]**

186

**01.2** Convert the binary number 11001110 into hexadecimal. You should show your working.

**[2 marks]**

1100 = 12 = C [1 mark]; 1110 = 14 = E [1 mark]

Answer: CE

**01.3** Convert the hexadecimal number 4C into decimal. You should show your working.

**[2 marks]**

4 x 16 = 64; C = 12 so 4C = 64 + 12 = 76

Answer: 76

**01.5** State the arithmetic effect of right binary shifting a binary number by 4 and then left binary shifting the result by 2.

**[1 mark]**

right shift of 2 [no marks – question askes for arithmetic effect] quarter it [1] / divide by 4 [1]

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

**[2 marks]**

```
  00100111
  00011001
+ 00100101
  01100101
```

**03** Place the following quantities in order of size (1 – 4, where 1 is the smallest and 4 is the largest)

**[3 marks]**

| **Quantity** | **Order (1 – 4)** |
|---|---|
| 15 bits | 2 |
| 1 Byte | 1 |
| 1 kiloByte | 3 |
| 1,040 Bytes | 4 |

[1 mark if one correct; 2 marks if two correct; 3 marks if all four correct]