01.1 Convert the hexadecimal number CA into binary.

[2 marks]

……..

Answer: ……..

01.2 What binary shift can be used to **half** the value of a binary number?

[2 marks]

……..

01.3 The Danish alphabet has **29** characters. What is the minimum number of bits needed to be able to represent any character from the Danish alphabet?

[1 mark]

……..

01.4 How many binary numbers can be represented using **7 bits**?

[1 marks]

……..

01.5 Write down the largest decimal number that can be represented using 8 bit binary.

[1 mark]

……..

02.1 State the maximum number of different colours that can be used if a bitmap image has a colour depth of **seven** bits.

[1 mark]

……..

02.2 Calculate the minimum file size in **bits** of a 10 by 10 pixel image with a colour depth of 3 bits.

[1 mark]

……..

02.3 Calculate the minimum file size in **bytes** of a 10 by 10 pixel image with 12 different colours. You should show your working.

[3 marks]

……..

……..

……..