

1(a)	255
1(b)	00010111 10101000
1(c)	11
1(d)	66
1(e)	One mark for each correct nibble. One mark for a correct method of working, for example carries. <pre> 1 1 1 0 1 1 1 0 1 1 0 + 0 0 1 1 0 0 0 0 ----- 1 0 1 0 0 1 1 0 </pre>
1(f)	Using two's complement
1(g)	Any two from: - It has a single/limited function - It has dedicated hardware - It has a microprocessor - Its function is not easily changed

2(a)	Printer
2(b)(i)	0001 0100 1011 1001 0111 1010
2(b)(ii)	Any two from: - Easier/quicker for the customer to understand/read/remember - Takes up less space on the ticket // Shorter representation
2(c)(i)	44 267
2(c)(ii)	(0)6D 19F

1(a)	B
1(b)(i)	- Lossy - Lossless
1(b)(ii)	Any three from: - The file requires less storage space - Takes less time to transmit - A lower bandwidth can be used to transmit the file - Less data usage for data allowance - More likely to meet file size limits set by email clients/apps

2(a)	bit
2(b)	4
2(c)	Any two from: $22\,016 \times 8$ then divided 8 $22\,016 \times 10$ $220\,160 / 1024$ One mark for: 215 KiB
2(d)(i)	Reducing the size of a file
2(d)(ii)	It will take up/use less storage space