Paper 1

Question	Answer	Marks
5(a)	1 mark for correct method, 1 mark for correct answer 32 □ 16 □ 8 □ 1 (00)111001	2
5(b)	registers **must** have leading zeros, allow follow through from 5(a) for an incorrect value 1 mark for each correct register. | 0	0	1	1	1	0	0	1 | | 0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	1		2

5(c)	**Two** from:
	
	    □ data
	    □ ASCII value / Unicode value / character
	    □ number
	    □ part of image / small image
	    □ a sound / sound sample / small sound track
	    □ instruction
		2

5(d)	3A	1

5   **(a)** 1 mark per correctly placed tick

Received byte	Byte transmitted correctly	Byte transmitted incorrectly
1 1 0 0 1 0 0 0		✓
0 1 1 1 1 1 0 0		✓
0 1 1 0 1 0 0 1	✓	

[3]

(b) (i) byte number: **7**

        column number: **6**

[2]

Question	Answer	Marks
12	**Four from (Max three from each):** **MP3** ☐ Digital recording of sound ☐ Produced by recording software / microphone ☐ Used when distributing sound files ☐ Compressed file format **MIDI** ☐ Instructions of how to make sound ☐ Non-audio recording ☐ File created using **digital** musical instruments ☐ Produced by synthesizer ☐ Used when composing music ☐ Individual notes/instruments can be changed	4

Question	Answer	Marks
4(a)	1 mark for each correct conversion *01101010* **11111111** **00001000** **10010011**	3
4(b)	☐ Computers use switches / logic gates ☐ Only uses 2 states / On or Off / 1 or 0	2

Question	Answer	Marks
5(a)	☐ Bits sent one at a time ☐ Uses a single wire	2
5(b)	USB / SATA / Wifi /PCI Express / Any appropriate serial device	1
5(c)	☐ Data is transferred in two directions ☐ Data is sent in only one direction at a time	2

Question	Answer	Marks
10(a)	**Four from:** ☐ Validation method ☐ Used to check data entry ☐ Digit is calculated from data // by example ☐ Digit is appended / added to data ☐ Digit is recalculated when data has been input ☐ Digits are compared ☐ If digits are different, error is detected // If digits match, no error is detected	4

Paper 2

2	**(i)** **1 mark for each change** Change variable name in every instance as needs to be meaningful e.g. `Large` Set this variable to a low value line 5: change comparison from < to >	[3]

(ii) **3 marks maximum, 1 mark for each change correctly included.**

```
1   Large = 0
2   Counter = 0
3   REPEAT
4      INPUT Num
5      IF Num > Large THEN Large = Num
6      Counter = Counter + 1
7   UNTIL Counter = 10
8   PRINT Large
```
[3]

Question	Answer	Marks
4(a)	1 mark for each correct line	4

Pseudocode description

A loop that will iterate at least once.

A conditional statement to deal with many possible outcomes.

A loop that will iterate a set number of times.

A conditional statement with different outcomes for true and false.

Pseudocode statement

FOR...TO...NEXT

IF...THEN...ELSE...ENDIF

WHILE...DO...ENDWHILE

CASE...OF...OTHERWISE...ENDCASE

REPEAT...UNTIL