Question 8 (6 marks)

Consider the following collection of (very unrealistically sized) superimposed codeword page descriptors and their corresponding bit-sliced version. Page desciptors are 10-bits long, and there are 8 pages. Bit-slices are 8-bits long and there are 10 of them.

```
Page descriptors          Bit Slices
================          ==========
[0] 0100010110            [0] 01010110
[1] 1000110010            [1] 10100101
[2] 0101010100            [2] 00010110
[3] 1010101010            [3] 00101110
[4] 0001111000            [4] 01011001
[5] 1111000000            [5] 11101001
[6] 1011000001            [6] 00011000
[7] 0100110100            [7] 10100001
                          [8] 11010000
                          [9] 00000010
```

Given the query descriptor `0100010100` ...

a. Show how the slice of potentially matching pages is derived.
Start from a "matching slice" containing `11111111`, and show all intermediate values of the matching slice.

b. State which pages contain potential matches.
Bit [0] in a slice corresponds to page [0], bit [1] in a slice corresponds to page [1], etc.

State all assumptions. Show all working.

Instructions:

- Type your answer to this question into the file called `q8.txt`
- Submit via: **`give cs9315 exam_q8 q8.txt`**
  or via: Webcms3 > exams > Final Exam > Q8 submission > Make Submission

End of Question