3 Bit excess notation:  
111 – 3  
110 – 2  
101 – 1  
100 – 0  
011 - -1  
010 – -2  
001 - -3  
000 - -4

2. a. 2 ¾  
Step 1. 10.11 is Binary for 2 ¾  
Step 2. We need to move 2 spaces to the right so we need to calculate an exponent field that is 2 in three bit excess notation = 110  
Step 3. The number is a positive number and as such we place a 0 on the front.  
Answer – 01101011  
b. 5 ¼  
Step 1. 101.01  
Step 2. This will be a truncation error as we do not have enough space in our mantissa.  
c. ¾  
Step 1. .11  
Step 2. 010  
Step 3 – Positive (0)  
Answer = 00101100   
*^ Not confident in answer for C, need to read up on it more.*  
*Need to do d. and e. but want to read up/check on c before attempting.*

3. 01001001 = 1001 = 9  
00111101 = .1101 = ?  
As we can see the second example is far smaller.  
A relatively simple way to determine this would be to check the exponent, in the second example we can quickly determine that 011 = -1 and as such the binary output will be beginning with a decimal point.